Appl. No. 10/618,060
Amdt. dated February 13, 2007
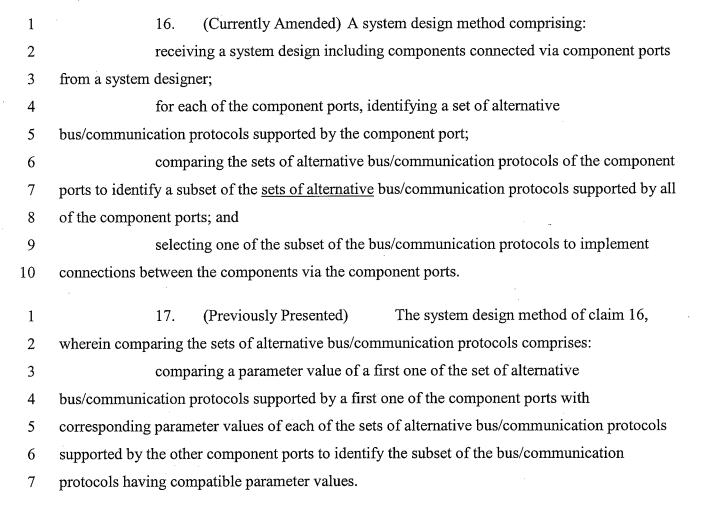Reply to Office Action of July 21, 2006

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1   16.   (Currently Amended) A system design method comprising:

2   receiving a system design including components connected via component ports

3 from a system designer;

4   for each of the component ports, identifying a set of alternative

5 bus/communication protocols supported by the component port;

6   comparing the sets of alternative bus/communication protocols of the component

7 ports to identify a subset of the <u>sets of alternative</u> bus/communication protocols supported by all

8 of the component ports; and

9   selecting one of the subset of the bus/communication protocols to implement

10 connections between the components via the component ports.

1   17.   (Previously Presented)   The system design method of claim 16,

2 wherein comparing the sets of alternative bus/communication protocols comprises:

3   comparing a parameter value of a first one of the set of alternative

4 bus/communication protocols supported by a first one of the component ports with

5 corresponding parameter values of each of the sets of alternative bus/communication protocols

6 supported by the other component ports to identify the subset of the bus/communication

7 protocols having compatible parameter values.

Appl. No. 10/618,060
Amdt. dated February 13, 2007
Reply to Office Action of July 21, 2006

PATENT

1   18.   (Previously Presented)   The system design method of claim 16,

2 wherein comparing the sets of alternative bus/communication protocols comprises:

3   comparing a operation of a first one of the set of alternative bus/communication

4 protocols supported by a first one of the component ports with corresponding operations of each

5 of the sets of alternative bus/communication protocols supported by the other component ports to

6 identify the subset of the bus/communication protocols having compatible operations.

1   19.   (Previously Presented)   The system design method of claim 18,

2 wherein the subset of the bus/communication protocols having compatible operations includes a

3 first operation associated with a first one of the component ports and a complementary operation

4 associated with at least one of the other component ports.

1   20.   (Previously Presented)   The system design method of claim 16,

2 wherein comparing the sets of alternative bus/communication protocols comprises:

3   comparing a connection value of a first one of the set of alternative

4 bus/communication protocols supported by a first one of the component ports with

5 corresponding connection values of each of the sets of alternative bus/communication protocols

6 supported by the other component ports to identify the subset of the bus/communication

7 protocols having compatible connection values.

1   21.   (Previously Presented)   The system design method of claim 18,

2 wherein the subset of the bus/communication protocols having compatible connection values

3 includes an input for a first operation associated with a first one of the component ports and an

4 output for the first operation associated with at least one of the other component ports.

1   22.   (Previously Presented)   The system design method of claim 16,

2 wherein comparing the sets of alternative bus/communication protocols comprises:

3   comparing a role value of a first one of the set of alternative bus/communication

4 protocols supported by a first one of the component ports with corresponding role values of each

5 of the sets of alternative bus/communication protocols supported by the other component ports to

6   identify the subset of the bus/communication protocols having compatible role values, wherein

7   each role value is associated with at least one connection value, wherein each connection value is

8   associated with at least one operation, wherein each operation is associated with at least one

9   parameter value.

1   23.   (Currently Amended) The system design method of claim 16, wherein

2   selecting one of the subset of the bus/communication protocols to implement connections

3   between the components via the component ports comprises:

4   determining the number of bus/communication protocols included in the subset;

5   in response to the <u>number of bus/communication protocols included in the subset</u>

6   <u>being one,</u> ~~subset having a single bus/communication protocol,~~ selecting the single

7   bus/communication protocol; and

8   in response to the subset being an empty set, notifying the system designer that

9   the connections between the components via the component ports cannot be made.

1   24.   (Currently Amended) The system design method of claim 23, further

2   comprising:

3   in response to the <u>number of bus/communication protocols included in the subset</u>

4   ~~subset including~~ <u>being</u> at least two ~~bus/communication protocols,~~ automatically selecting one of

5   the subset of the bus/communication protocols to implement connections between the

6   components via the component ports.

1   25.   (Currently Amended) The system design method of claim 23, further

2   comprising:

3   in response to the <u>number of bus/communication protocols included in the subset</u>

4   ~~subset including~~ <u>being</u> at least two ~~bus/communication protocols,~~ presenting the subset to the

5   system designer; and

6   receiving a selection from the system designer of one of the subset of the

7   bus/communication protocols to implement connections between the components via the

8   component ports.

1   26.   (Previously Presented)   The system design method of claim 16,

2   wherein identifying a set of alternative bus/communication protocols supported by the

3   component port comprises:

4   for each component port, retrieving corresponding component information from a

5   component library storing previously defined component information, wherein the corresponding

6   component information specifies at least a portion of at least one bus/communication protocol

7   supported by the component port.

1   27.   (Previously Presented)   The system design method of claim 26,

2   wherein the component library is stored in a database.

Appl. No. 10/618,060
Amdt. dated February 13, 2007
Reply to Office Action of July 21, 2006

PATENT

1   28.   (Previously Presented)   The system design method of claim 26,

2 wherein the component information specifies at least a portion of at least one bus/communication

3 protocol in an XML format.

1   29.   (Cancelled)

1   30.   (Cancelled)

1   31.   (Previously Presented)   The method of claim 16, further comprising:

2   analyzing the selected one of the subset of bus/communication protocols to

3 identify a first set of connections defined by the selected one of the subset of bus/communication

4 protocols;

5   analyzing the component ports of the components to identify the connections used

6 by the component ports of the components for the selected one of the subset of

7 bus/communication protocols; and

8   comparing the connections used by the component ports of the components with

9 the first set of connections to determine a portion of the first set of connections necessary to

10 implement the connections.